Math 416 - Abstract Linear Algebra Fall 2011, section E1 Additional problems

Section 6.6

A6.6.1. Let $\{w_1, \ldots, w_n\}$ be a basis of \mathbb{R}^n and let $\{v_1, \ldots, v_n\}$ be the **orthonormal** basis obtained from it by the Gram-Schmidt process.

Show that $\{w_1, \ldots, w_n\}$ and $\{v_1, \ldots, v_n\}$ have the same orientation.